

LISTING OF CLAIMS:

1. (Currently Amended): A multi-band antenna for use in conjunction with communication systems, comprising:

a radiating element, said element containing a first slot antenna operating in the PCS frequency band and a second slot antenna operating in the AMPS frequency band;

a reflector, said reflector coupled to said radiating element; and

at least one transmission line to feed said first and said second slot antennas;

wherein the radiating element is generally planar and the reflector is U shaped and comprises a generally planar surface parallel to the radiating element and wherein the distance between the generally planar surface of the reflector and the radiating element is a maximum of one-thirteenth of a wavelength for a signal in the AMPS band.

2. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein the radiating element is comprised of a printed circuit board material.

3. (Previously Presented): A multi-band antenna as set forth in claim 2, wherein said printed circuit board material is formed of FR4.

4. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein the radiating element further comprises a GPS patch antenna.

5. (Currently Amended): A multi-band antenna as set forth in claim 1, wherein the reflector ~~coupled to the radiating element~~ and the radiating element together form a reflecting cavity that is generally rectangular in ~~shape~~ cross section.

6. (Currently Amended): A multi-band antenna as set forth in claim 1, wherein the radiating element is generally planar and the reflector is U shaped and comprises a ~~generally rectangular~~, generally planar surface parallel to the radiating element and wherein the distance between the generally planar surface of the reflector and the radiating element is between .75 inch and 1.25 inch.

7. (Currently Amended): A multi-band antenna as set forth in claim 1, wherein the radiating element is generally planar and the reflector is U shaped and comprises a ~~generally rectangular~~, generally planar surface parallel to the radiating element and wherein the distance between the generally planar surface of the reflector and the radiating element is not more than one-sixth of one wavelength for a signal in the PCS band.

8. (Cancelled).

9. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein the amount of a signal from said radiating element that is reflected by said reflector is 90% or greater of the total radiated signal striking said reflector.

10. (Previously Presented): A multi-band antenna as set forth in claim 2, wherein said transmission line is printed directly on said printed circuit board material.

11. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said first slot antenna and the said second slot antenna are parasitically coupled.

12. (Previously Presented): A multi-band antenna as set forth in claim 11, wherein the width of said multi-band antenna is less than 2.25 inches.

13. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said at least one transmission line contains a plug terminal for connection to said communication systems.

14. (Previously Presented): A multi-band antenna as set forth in claim 4, wherein said at GPS patch antenna contains a plug terminal for connection to said communication systems.

15. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein the length of said multi-band antenna is less than 8.25 inches.

16. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said at least one transmission line is adapted for connection to said communication systems using a pigtail.

17. (Previously Presented): A multi-band antenna as set forth in claim 17, wherein the length of said multi-band antenna is less than 6.75 inches.

18. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said first slot antenna operating in the PCS frequency band achieves a gain of -3 dB or greater.

19. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said second slot antenna operating in the AMPS frequency band achieves a gain of -3dB or greater.

20. (Previously Presented): A multi-band antenna as set forth in claim 4, wherein said GPS patch antenna achieves a gain of -3 dB or greater.

21. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said multi-band antenna uses vertical polarization as a primary mode of reception.

22. (Previously Presented): A multi-band antenna as set forth in claim 21, wherein said multi-band antenna contains a horizontal polarization component.

23. (Previously Presented): A multi-band antenna as set forth in claim 1, wherein said multi-band antenna is mounted to a front windshield in a vehicle.

24. (Previously Presented): A multi-band antenna as set forth in claim 23, wherein said vehicle has a roof portion and said multi-band antenna is electrically coupled to said roof portion.

25. (Previously Presented): A multi-band antenna as set forth in claim 23, wherein said vehicle has a passenger compartment and wherein the amount of a signal radiated by said radiating element that enters said passenger compartment is less than 10% of the total radiated signal.

26. (New): A multi-band antenna as set forth in claim 1 wherein said reflector forms a rectangular reflection cavity together with said radiating element.